

## PATENT ABSTRACTS OF JAPAN

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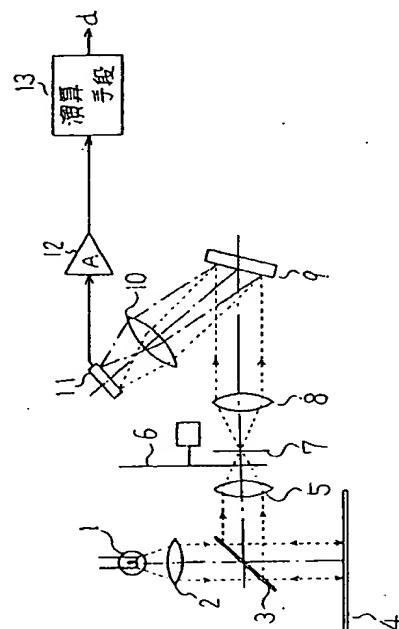
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## (54) APPARATUS FOR MEASURING FILM THICKNESS

## (57)Abstract:

**PURPOSE:** To obtain the title apparatus capable of certainly measuring a film thickness even when an interference fringe pattern is unclear, by operating the film thickness from the output, relating to the polarity when the difference between max. and min. values is a predetermined value, among outputs with respect to the wavelengths of a detector.

**CONSTITUTION:** The beam from a beam source 1 is projected to an object 4 to be measured and the beam transmitted through or reflected from said object 4 is spectrally diffracted by a spectroscope 9 and an interference fringe is detected by a detector 11 and the film thickness of the object 4 is operated by an operation means 13. However, interference fringe patterns are shifted and overlapped by the irregularity of the film thickness of the object to often generate a weak part. Then, the film thickness is measured from the output, relating to the polarity when the difference between max. and min. values is a predetermined value, among the outputs with respect to the wavelengths of a detector. By this method, an uncertain and weak interference fringe is removed and the film thickness of the object 4 can be measured from a strong and certain interference fringe.



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